OWNERS MANUAL

Bearcat® 210XL

SIX BAND SCANNING RECEIVER

Low Band	**UHF Band**
2-Meter Amateur	**UHF (T) Band**
High Band	**70 CM Amateur**

MONITORS VHF and UHF FM RADIO SERVICES

Hams	Utility services	Special Emergency
Police	Industry	Disaster Relief
Government	Business	School Buses
Forestry	Hospitals	Transportation
Conservation	Ambulances	Taxicabs
Mobile telephones	Automobile Emergency	Railroads
Press	Marine	Paging
Fire	Manufacturers	Trucks

MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING PATENTS:
3,961,261 3,962,644 4,027,251 4,092,594 4,100,497 4,123,715 and patents pending

Electra

Electra Company
Division of Masco Corp. of Indiana

300 East County Line Road
Cumberland, Indiana 46229

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TRADE NAME: BEARCAT 210XL

MODEL NUMBER: BC-210-1

UL® UNDERWRITERS LABORATORIES LISTED

Certified in accordance with FCC Rules and Regulations Part 15.63 as of date of manufacture.

CAUTION

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

For future reference, write the model number and serial number below. You will find them printed on the back of your radio.

Model No. _____ Serial No. _____

Purchased from: _____ Date _____

TECHNICAL SPECIFICATIONS*

Size:	10⅝"W x 3½"H x 8"D
Weight:	5 lbs.
Cabinet:	Vinyl-clad steel or painted textured steel
Power:	117Vac 20W, 13.8Vdc, 9W
Antenna:	Telescoping antenna (supplied) Connector provided for external antenna (50-70 ohms)
RF Sensitivity:	0.6 microvolts 32-174MHz 0.8 microvolts 420-512MHz (±3KHz deviation 12 db SINAD)
IF Selectivity:	—55db @ ±25KHz
Frequency Coverage:	Low Band 32 - 50MHz 2-Meter Amateur 144 - 148MHz High Band 148 - 174MHz 70 CM Amateur 420.462 - 450 MHz UHF Band 450 - 470MHz UHF-T Band 470.0125 - 512.0MHz
Scan/Search Speed:	Selectable 5 or 15 channels per second
Audio Output:	2 Watts rms, 8 ohms, 10% THD (max.)
Front Panel Controls:	Volume (on/off) Squelch (Auto Squelch) Display Keyboard Speaker
Rear Apron Connectors:	12Vdc External Antenna External Speaker Jack 117 VAC Receptacle

***Specifications are typical and subject to change without notice.**

SAFETY PRECAUTIONS

Although your Bearcat 210XL is listed with Underwriters Laboratories for complying with standards of safety, a review of common precautions is recommended.

- Do not operate this unit if it is wet.
- Never touch an electrical appliance while standing in water or on wet ground.
- Do not tamper with the internal circuitry.
- Do not connect or disconnect the rear-apron power connector when the line cord is plugged into an ac receptacle.

SAFETY INSTRUCTIONS

Read SAFETY INSTRUCTIONS before operating the radio. Save the SAFETY INSTRUCTIONS for future reference.

Warnings on the radio and instruction manual are for your safety. Operating and use of instructions should be followed to achieve full satisfaction from your radio.

The radio should be connected only to a power source of the type described in the instruction manual and as marked on the radio. Power cords should be routed so that they are not likely to be walked on or pinched. The ac power cord is provided with a gripper for ease in removal from the wall outlet. The power cord should be inspected occasionally for damage.

The radio should be situated so that its location does not interfere with its proper ventilation, and placed away from heat sources such as radiators, heat registers, and other appliances that produce heat. The radio should be used only with a cart or stand recommended by the manufacturer. The radio should be mounted to a wall or ceiling only as recommended by the manufacturer.

The radio should not be operated near water - for example, a wet basement, kitchen sink, or near a swimming pool.

The power cord should be unplugged from the outlet when left unused for a long period of time. Also remove batteries (if used).

Care should be taken so that objects do not fall and liquids are not spilled into the radio.

Damage Requiring Service - the radio should be serviced by qualified service personnel when:

A. The power supply cord or the plug has been damaged; or

B. Objects have fallen, or liquid has been spilled into the radio; or

C. The radio has been exposed to rain; or

D. The radio does not appear to operate normally or exhibits a marked change in performance; or

E. The radio has been dropped, or the enclosure damaged.

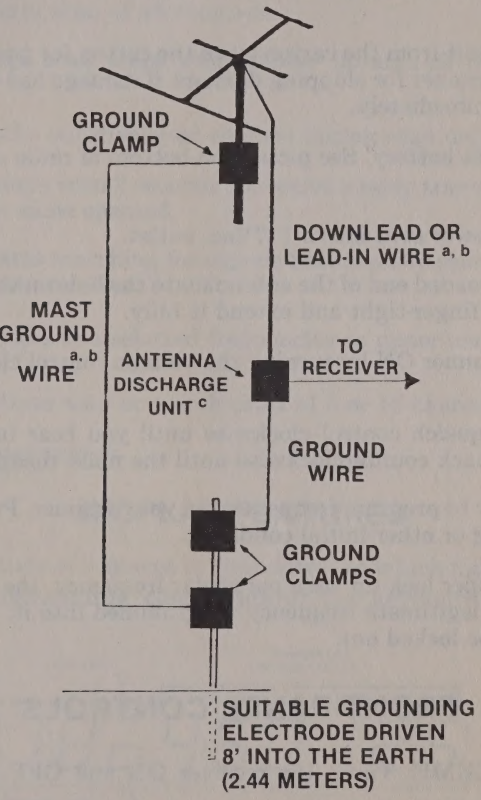
Servicing - the user should not attempt to service the radio beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Cleaning - radios should be cleaned using a damp cloth.

SAFETY INSTRUCTIONS (Cont'd.)

Outdoor Antenna Grounding - Many of the Bearcat radios have provisions for connection to an outside antenna. An outside antenna should be located away from power lines. The antenna system must be grounded to provide protection against voltage surges and built up of static charges. The antenna system should be installed only by qualified service personnel. Section 810 of the National Electric Code, ANSI/NFPA No. 70-1978 provides information with respect to proper grounding of the mast and supporting structure, grounding of lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS


GROUND CLAMP
DOWNLEAD OR LEAD-IN WIRE a, b
MAST GROUND WIRE a, b
ANTENNA DISCHARGE UNIT c
TO RECEIVER
GROUND WIRE
GROUND CLAMPS
SUITABLE GROUNDING ELECTRODE DRIVEN 8' INTO THE EARTH (2.44 METERS)

[a] Use No. 10 AWG copper or No. 8 AWG aluminum or No. 17 AWG copper-clad steel or bronze wire, or larger as ground wires for both mast and lead-in.

[b] Secure lead-in wire from antenna to antenna discharge unit and mast ground wire to house with stand-off insulators, spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.

[c] Mount antenna discharge unit as closely as possible to where lead-in enters house.

GENERAL DESCRIPTION

The Bearcat 210XL uses a microprocessor to make scanning easy. Its versatile keyboard is divided into a Program Section that will allow you to command any frequencies (VHF/UHF) on its 18 channels; and an Operation Section that controls scan, lockout of unwanted channels, direct channel access, automatic search, selectable speed control for both scan and search.

The solid state circuits include 3 custom designed integrated circuits that give it unique features. It operates on either 117Vac or 12Vdc.

OPERATING INSTRUCTIONS

Read the following instructions carefully and enjoy listening to your scanner in minutes.

1. Unpack the unit from the carton (save the carton for possible future use). Check your scanner for shipping damage; if damage has occurred, contact your dealer immediately.

2. Install a 9-volt battery. See picture on bottom of radio or battery details, on page 11.

3. Attach the power cord into a 117Vac, outlet.

4. Insert the threaded end of the antenna into the hole on the top of the scanner. Screw it finger-tight and extend it fully.

5. Turn your scanner ON by turning the volume control clockwise 1/3 of its rotation.

6. Rotate the squelch control clockwise until you hear background noise; then turn it back counterclockwise until the noise disappears.

7. You are ready to program frequencies in your scanner. Press "Manual" to stop scanning or other initial condition.

8. To insure proper lock up, on a particular frequency, the previous channel must have a legitimate frequency programmed into it. **All unused channels should be locked out.**

FRONT PANEL CONTROLS

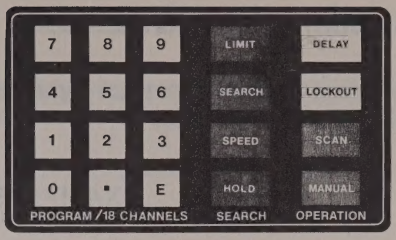
1. ON/OFF-VOLUME: Turns the receiver ON and OFF and adjusts the sound level.

2. SQUELCH: Allows the radio to scan or search for signals, and keeps the radio quiet unless a signal is being received.

3. AUTO SQUELCH: A convenient, fixed squelch setting.

4. KEYBOARD: Simply punch in the desired frequencies you wish to monitor. It also controls automatic scan or manual channel select, search limits, starts the radio searching, programs the delay and lock out features into any desired channels.

KEYBOARD



PROGRAM KEYS:

Numeric keys [0] thru [9] and decimal point [.] are used to program the frequencies into your scanner. [E] enters frequencies into scan channels.

OPERATION KEYS:

[Scan] Starts scan of all channels.

[Manual] Stops scan; steps your scanner through all 18 channels.

[Lockout] Locks out displayed channel during scan only.

[Delay] Delays scan 2 seconds to receive a reply transmission when on the same channel.

[Search] Starts searching for signals between two selected frequencies. Restarts after "hold".

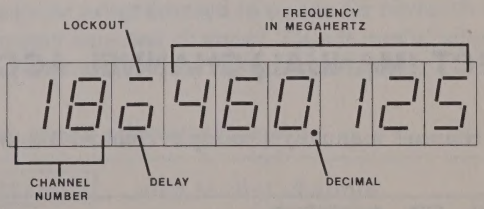
[Limit] Enters two selected frequencies as upper and lower limits;

[Speed] Selects scan or search rates of 5 or 15 channels per second.

[Hold] Stops search.

DISPLAY FEATURES

The display consists of 9 spaces or "windows" in which lighted characters indicate the programming commands of the keyboard and scanning status.



CHANNEL is indicated in first and second space.

DELAY is shown in third space. In manual and in scanning mode.

LOCKOUT is indicated in third space. In manual and in normal scan mode.

FREQUENCY 460.125MHz is shown in the 4th thru 9th spaces.

PROGRAMMING FREQUENCIES INTO THE RECEIVER

You can program your radio to scan eighteen different frequencies, one in each of the eighteen channels.

EXAMPLES

To program 162.55MHz in desired channel (example channel 14):

PRESS:	[Manual]	step to desired channel 14
PRESS:	[1] [6] [2] [.] [5] [5] [E]	
READ:	1 4	162.550
PRESS:	[Manual]	steps to next channel (15)

To program 471.1375MHz in next channel (15):

PRESS:	[4] [7] [1] [.] [1] [3] [7] [5] [E]	
READ:	1 5	471.137 (rounded off to 6 places)

If you attempt to program a frequency that is outside the tuning range of the receiver, "Error" appears on the display. If this happens, simply enter a new frequency.

If you made a mistake programming a frequency on a channel:

PRESS:	[E]	Then program correct frequency.

DIRECT (MANUAL) CHANNEL ACCESS

To display any channel manually (example channel 14) when scanning is stopped, just:

PRESS:	[1] [4] [Manual]
READ:	1 4 in first and second spaces followed by frequency.

If you want to advance from channel 14 to 15 just press [Manual] then read 15 followed by the frequency.

LOCKOUT

You may wish to lock out certain frequencies and skip over them when scanning. **To program Lockout** on a channel (example 5) first select that channel manually.

PRESS:	[5] [Manual]
PRESS:	[Lockout]
READ:	5 — minus sign appears in the third space of display.

To remove Lockout:

PRESS:	[Lockout] again and the minus sign will disappear.

Note: If all channels are locked out "Error" will be displayed. This may be eliminated by removing lockout from one channel.

SPEED

To scan slowly (5 channels per second):

PRESS:	[Speed]

To resume fast scan (15 channels per second):

PRESS:	[Speed]

DELAY

Your scanner may be programmed to pause for about two seconds after a transmission on any selected channel. This is useful when both sides of a conversation are transmitted on the same frequency.

To Program Delay on a selected channel:

PRESS:	[Manual]	step to that channel
PRESS:	[Delay]	The symbol [o] appears on this channel.

To remove Delay

PRESS:	[Delay]	The symbol [o] will disappear from this channel.

SEARCH

To Search for unknown signals between two frequencies in the same band, manually step to the channel you desire to use, (example Channel 8), then, for example, to Search from 146.500 to 146.950MHz:

PRESS:	[Manual]	step to Channel 8
PRESS:	[1] [4] [6] [.] [5] [Limit]	
READ:	8 146.500	(One limit is entered)
PRESS:	[1] [4] [6] [.] [9] [5] [Limit]	
READ:	8 146.950	(Other limit is entered)
PRESS:	[Search]	

When an active channel is found, the Search stops and the frequency is displayed.

To stay on that frequency:

PRESS:	[Hold]

To resume searching without changing Search limits:

PRESS:	[Search]

To store that frequency in that channel:

PRESS:	[Manual]	Search limits are lost when you leave the search mode.*

Note that the last frequency displayed during search remains in the channel when search is discontinued on that channel. If "Error" appears in place of a frequency:

1. Search limits were not in the same band, or
2. An out of band frequency was attempted.

* It may be desirable to use [Hold] and write down active frequencies which may be programmed after searching is done. This method will maintain search limits in memory.

MOBILE INSTALLATION

In some areas, unauthorized mobile police receivers are unlawful; be sure to check with local authorities before installing your unit.

Your Bearcat 210XL can be installed in any vehicle or boat which has a 12-volt, negative-ground electrical system.

A mounting bracket has been provided for your convenience.

1. Using the mobile mounting bracket, select a location under the dash to hold the scanner in the desired position.
2. Mark and drill two mounting holes using a 7/64 drill bit; secure the bracket with two #6 self-tapping screws (provided).
3. Insert the two plastic T-washers (provided) into the bracket holes, flanges inward, and secure the scanner in place with the two mounting bolts and washers (provided).
4. Connect the dc power cable (provided) to the insulated terminal on the rear apron of the receiver; attach the other end of the cable to the 12V battery.

Note: The receiver should be connected to an uninterrupted 12V source in the car in order to hold channels in memory.

Be sure the radio cabinet is well-grounded to the car metal through the mounting frame; otherwise, connect a piece of wire from the ground screw on the rear apron of the radio to the metal body of the vehicle.

5. Connect an appropriate mobile monitor antenna designed for multi-band coverage to the scanner. If necessary, the automotive antenna, extended about 18 inches, can be used with fair results.

EXTERNAL ANTENNA

The telescoping antenna provided with your Bearcat 210XL is recommended for most monitoring. For weak-signal reception, or for electrically-noisy locations, an external antenna may be used. Always use coaxial cable for lead-in. RG-58U is recommended for lengths of up to 100 feet.

Your Bearcat 210XL is equipped with an automotive type of external antenna jack, and a mating plug (supplied) must be used.

An outside antenna need only be high enough to clear surrounding obstructions. Above all, STAY AWAY FROM POWER LINES! You may be killed upon contact of the antenna with a power line.

EXTERNAL SPEAKER

Although the internal speaker of the scanner will provide ample room volume, in some applications an external speaker such as the Bearcat B-45 may be desired. The external speaker should be plugged into the rear-apron jack which will cut off the internal scanner speaker. External speaker should be 8 ohms.

BATTERY

IMPORTANT: ALKALINE BATTERY LIFE IN THIS RADIO IS APPROXIMATELY 24 HOURS IF THE LINE CORD IS LEFT UNPLUGGED OR AC SOCKET POWER IS TURNED OFF.

The purpose of the battery in the radio is to maintain frequencies in the memory in the event of a power interruption or if the radio is to be unplugged during a brief period of time while the radio is being moved. Under these operating conditions, battery life is approximately ONE YEAR. While the receiver is plugged into 117Vac, the battery is not losing its charge and memory is activated by the power supply.

Your scanner is **not** supplied with a battery. It is recommended to install a 9-volt, heavy-duty or alkaline battery before you start programming and while the set is unplugged.

The battery compartment is held with two screws. Remove the screws and pull the compartment out of the receiver. Insert the battery into the holder and press it onto the snap connector. Reassemble the holder and secure it with the screws. (See picture on the bottom of the receiver.)

A partial list of available batteries is:

ALKALINE BATTERIES	Eveready #522DB
	Panasonic #6AM6
	Mallory #MN1604
HEAVY-DUTY BATTERIES	Eveready #222
	Burgess #2MN6

USER HINTS

Your scanner is a versatile instrument. The following operating hints will help you use all its features:

1. Always remember when programming, the [E] key must be depressed in order to enter the frequency desired.

2. Never turn the radio OFF by pulling the AC cord from the wall socket. Always turn the ON/OFF volume control OFF first, then disconnect the line cord when you must move the radio. If the radio is to be left disconnected for more than a few hours the 9V battery should be removed.

3. When memory is lost, it is corrected simply by reprogramming the desired frequencies.

4. If the keyboard or display is not working properly, a severe power line interruption may have caused the control circuit to lock up. To correct this condition, it may be necessary to turn the radio off, disconnect AC power, disconnect battery and then to reconnect the battery, AC power, and turn the radio on.

5. When searching, a strong signal may cause the scanner to "lock-on" just prior to the actual frequency. (e.g. weather may be received on 162.545 rather than the correct frequency 162.550). This is easily corrected by pressing the Search button again.

6. This receiver has high noise immunity because of the quieting squelch system. However, in cases of strong interfering noise or signals, it may be desirable to reduce the length of the antenna to reduce noise pick-up below a critical level. This may be very effective in medium and strong signal areas.

7. When programming, be sure to press each key firmly in the center — this assures registering each desired number and avoids errors.

8. When moving or shipping the radio, remove the 9V battery and the telescoping antenna to avoid damage to it or to the internal circuit assemblies.

SERVICE

If your scanner does not seem to be functioning properly:

1. Refer to operating instructions to confirm that the proper procedure for operation has been followed.
2. Be sure the radio is plugged into a working ac outlet.
3. Is it turned ON?
4. Check that the telescoping antenna is properly installed.
5. If memory is lost after a power failure, check for a dead battery.
6. If "Error" appears on readout, you have entered an invalid frequency.
7. If it is then determined that the receiver requires servicing, refer to the warranty instructions enclosed with your unit for the proper repair facility.
8. When preparing the receiver for shipment, **remove the telescoping antenna, 9V battery, and ac power cord.**
9. Pack the unit in its original packing carton and include a brief, concise description of the observed problem you are having along with your name, address, phone number and a copy of your purchase receipt.

BIRDIES

All scanners using frequency synthesized circuits generate signals called "Birdies". Those signals may interfere with the search frequencies on your scanner.

If during Search the receiver encounters a "birdie", the search will most likely stop. In order to resume searching just press the Search button.

The following is a list of "birdie" frequencies:

LOW BAND VHF	HIGH BAND VHF	UHF & T BAND
31.20 MHz	146.400 MHz	
41.595		

FREQUENCY ALLOCATIONS

Because of the short-range nature of VHF and UHF FM communications, frequencies allocated to services in one geographical location will not be heard more than 25-50 miles distance (an exception is "skip", when signals bounce back to earth from the ionosphere). For this reason, a separate frequency directory must be compiled for each monitoring area.

Most standard frequency separations and classifications are regulated in the United States by the FCC.

Block allocations . . . and even some discrete frequencies . . . covered by your scanner are shown below. These are not necessarily active in your area.

ABBREVIATIONS

Police	P.D.
State Police	St. P.D.
Fire Department	F.D.
Special Emergency	Sp. Emer.
Highway Maintenance	Hwy.
Forestry-Conservation	Fors. Cons.
Government	Govt.
Local Govenrment	L. Govt.
Business Radio	Bus.
Manufacturers	Mfg.
Broadcast Remote	BC R.
Mobile Telephone	Mob. Tel.
Radio Paging	Page.
Special Industrial	Sp. Ind.
Motion Picture	Mot. P.
Power Utilities	Power
Petroleum	Pet.
Forest Products	For. Prod.
Railroad	R.R.
Automobile Emergency	Auto Emer.
Red Cross	
U.S. Weather Bureau	U.S.W.B.
U.S. Coastal & Geodetic Survey	U.S.C.G.S.
National Parks	Nat. Pk.
Indian Affairs	
Bureau of Reclamation	Bur. Recl.
Department of Agriculture & Forestry	Agr. & For.
Land Transportation	Land Tr.

30-50MHz Band

30.01 - 30.56	Govt.
30.56 - 30.62	Sp. Ind.
30.66 - 31.24	Ind. (Pet. For. Cons. Bus., For. Prod.)
31.26 - 31.98	Sp. Ind., For. Cons.
32.00 - 33.00	Govt.
33.02 - 33.16	Hwy., Sp. Emer., Bus.
33.18 - 33.38	Pet.
33.42 - 33.98	F.D.
34.00 - 35.00	Govt.
35.02 - 35.18	Bus.
35.22 - 35.66	Mob. Tel. & Page
35.70 - 35.73	Bus.
35.74 - 35.98	Sp. Ind. & Bus.
36.00 - 37.00	Govt.
37.02 - 37.44	P.D. & L. Govt
37.45 - 37.86	Power
37.90 - 37.98	Hwy. & Sp. Emer
38.00 - 39.00	Govt.
39.02 - 39.98	P.D., L. Govt.
40.00 - 42.00	Govt.
42.02 - 42.94	St. P.D.
42.96 - 43.18	Sp. Ind. & Bus.
43.22 - 43.68	Mob. Tel. Page
43.70 - 44.60	Trucks, Bus.
44.62 - 45.06	St. P.D., For. Cons.
45.08 - 45.66	P.D.
45.68 - 46.04	P.D. Hwy., Sp. Emer.
46.06 - 46.50	F.D.
46.52 - 46.58	L. Govt.
46.60 - 47.00	Govt.
47.02 - 47.40	St. Hwy.
47.42 -	Red Cross
47.44 - 47.68	Sp. Ind., Sp. Emer.
47.70 - 48.54	Power
48.56 - 49.58	For. Prod., Pet.
49.60 - 50.00	Govt.

146 - 174MHz Band

146.000 - 148.000	HAM
148.010 -	MARS
148.150 -	CAP
148.155 - 148.250	MIL
148.290 - 150.750	USN
150.815 - 150.995	Bus.
151.010 - 151.130	Hwy.
151.145 - 151.475	For. Cons.
151.505 - 151.595	Sp. Ind.
151.625 - 151.955	Bus.
151.985 - 152.240	Mob. Tel. (RCC)
152.270 - 152.450	Taxi
152.480 - 152.840	Mob. Tel. Page
152.870 - 153.020	Sp. Ind. Mot. P

153.050 - 153.440 . . Pet., For. Prod.
153.470 - 153.710 . . . . .Power
153.740 - 154.115 . . . . L. Govt.
154.130 - 154.445 . . . . . F.D.
154.450 - 154.600 . Sp. Ind., Pet., Bus.
154.655 - 155.145 . . P.D., L. Govt., St. P.D.
155.160 - 155.400 . . Sp. Emer., P.D.
156.045 - 156.240 . . . Hwy., P.D.
156.275 - 157.425 . . . . Marine
157.456 - 157.500 . . . Auto Emer.
157.530 - 157.710 . . . . . Taxi
157.740 - 158.100 . . Mob. Tel., Page
158.130 - 158.460 . Power, For. Prod. Pet.
158.490 - 158.700 . .Mob. Tel. (RCC)
158.730 - 158.970 . . P.D., L. Govt.
158.985 - 159.210 . . . P.D., Hwy
159.225 - 159.465 . . . For. Cons.
159.510 - 160.200 . . . . Trucks
160.215 - 161.565 . . . . . R.R.
161.600 - 162.000 .. . . . Marine
162.026 - 162.175 . . . Bur. Recl.
162.400 - . . . . . . U.S.W.B.
162.475 - . . . . . . U.S.W.B.
162.550 - . . . . . . U.S.W.B.
163.125 - . . . . . Indian Affairs
163.175 - . . . . . Bur. Recl.
163.275 - . . . . . . U.S.W.B.
163.388 - 163.538 . . . . . MIL
163.825 - 163.975 . . . . . Govt.
164.025 - 164.075 . . . U.S.C.G.S.
164.175 - 165.188 . . . Bur. Recl., Nat. Pk., Govt., Agr. & For.
169.300 - . . . . . F.A.A.
169.450 - 169.725 . . . Ind., Data
170.150 - . . . . . F.D., BC. R.
170.200 - 170.220 . . . U.S.C.G.S.
170.225 - 170.325 . . Ind., Land Tr.
170.425 - 170.575 . . . For. Cons.
170.975 - 171.250 . Govt. Ind., Land Tr.
171.388 - 172.725 . . . Bur. Recl., For. Cons., Ind., Dept. Ag. & For., Govt.
172.775 - . . . . . Nat. Pk.
173.025 - . . . . . U.S.W.B.
173.075 - . . . . . U.S.C.G.S.
173.204 - . . . Press Relay, Mot. P., Pet., Bur. Recl.

420-512MHz Band

420.000 - 450.000 . . . . . HAM
451.050 - 450.950 . . . Remote Br.
451.000 - 451.150 . . . . . Util.
451.175 - 451.750 . . For. Prod., Pet., Pwr., Tel. Maint.
451.775 - 451.975 . . . Spec. Ind.
452.000 - 452.500 . . . Taxi, Mot. Carrier, R.R.
452.525 - 452.600 . . . Auto Club
452.625 - 452.975 Motor Carr., R.R
453.000 - 453.975 . . L. Govt., P.D., F.D.
454.000 - 454.975
454.000 - 454.975 . . . Mob. Tel.
455.000 - 455.975 . . . Remote Br.
456.000 - 458.975 . . . P.D., F.D., Ind., LandTr.
459.000 - 459.975 . .Domestic Public
460.000 - 460.625 . . . P.D., F.D.
460.650 - 462.175 . . . . . Bus.
462.000 - 462.450 . . . . . Taxi
462.550 - 462.725 . . . . . C.B.
462.750 - 462.975 . . . . . Bus.
463.000 - 463.175 . . . . . Med.
463.200 - 464.975 . . . . . Bus.
465.000 - 467.500 . . . P.D., F.D., Ind., Lan. Tr.
467.750 - 467.925 . . . . . Bus.
467.5375 - 467.7375 . . . . C.B.
467.7375 - 469.975 . . . Pub. Safety, Ind., Land. Tr.

In some large metropolitan areas, 1 or 2 channels of the "TV Band" (470MHz to 512MHz) are used for communication purposes. Each T.V. station (channels 14 through 20) utilizes 6MHz:

470-476 T.V.	Channel 14
476-482 T.V.	Chanenl 15
482-488 T.V.	Channel 16
488-494 T.V.	Channel 17
494-500 T.V.	Channel 18
500-506 T.V.	Channel 19
506-512 T.V.	Channel 20

Where these frequencies are assigned for communication purposes, in lieu of a T.V. station, the 6MHz segment is allocated as shown here for channel 14 (470 - 476MHz).

470.0125 - 470.2875 .Domestic Public (Base, Mob.)
470.3125 - 471.1375 . .Public Safety
471.1625 - 471.2875 . . . Reserve Pool A
471.3125 - 471.4125 . . .Pwr., Tel. Maint.
471.4375 - 471.6375 . . Spec. Ind.
471.6625 - 471.7875 . Reserve Pool B
471.8125 - 472.3375 . . . . Bus.
472.3625 - 472.4375 . . . . Taxi
472.4675 - 472.7875 . . R.R., Motor Carrier, Auto Emer.
472.8125 - 472.987 . Pet., For. Prod., Mfg
473.0125 - 473.2875 .Domestic Public
473.3125 - 474.1375 . .Public Safety
474.1625 - 474.2875 . . . Reserve Pool A
474.3125 - 474.4125 . . Pwr., Tel. Maint.
474.4375 - 474.6375 . . Spec. Ind. (Mobile)
474.6625 - 474.7875 . . . Reserve Pool B
474.8125 - 475.3375 . . . . Bus.
475.3625 - 475.4375 . . . . Taxi
475.4625 - 475,7875 R.R., Motor Carrier, Auto Emer.
475.8125 - 475.9875 .Pet., For. Prod., Mfg.

The same allocation pattern is repeated for each of the TV channels 14 thru 20. For example, if channel 17 is assigned for communications in your area, "Taxi" would be 490.3625 to 490.4375 and 493.4375 (corresponding to 472.3625 to 472.4375 and 475.3625 to 475.4375 above). Note that in the example, we added three TV channels (18MHz to the channel 14 frequencies.

LOCAL SERVICES

Service	Frequency

LOCAL SERVICES

Service	Frequency

NOTES

		Service	Frequency
CH	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		

LIMITED WARRANTY

This Bearcat® receiver is warranted to the original consumer purchaser to be free from defects in material and workmanship for a period of one (1) year from the date of purchase as shown on purchaser's receipt.

Electra will repair or replace, AT ITS OPTION AND FREE OF CHARGE, during the warranty period, any part which proves defective in material or workmanship under normal installation, use, and service, provided the receiver is returned to our factory (address below) or to one of our authorized Service Centers (list enclosed), TRANSPORTATION CHARGES PREPAID. Receivers returned to our factory or authorized Service Center must be accompanied by a copy of purchase receipt. In the absence of such purchase receipt, the warranty period shall be one (1) year from the date of manufacture as indicated by the serial number on your unit.

Any damage to this receiver as a result of misuse, abuse, neglect, accident, improper installation, destruction or alteration of the serial number, repair or alteration outside our factory or Service Center, or any use violative of instructions furnished by us WILL VOID THE WARRANTY. THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS REPAIR AND/OR REPLACEMENT ONLY AND EXCLUDES ANY INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. In the event of a problem with warranty service or performance, you may be able to go to a small claims court, a state court, or a federal district court.

Electra Company
Division of Masco Corp. of Indiana

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